

Serial No. 09/716,854
Attorney Docket No. E0886
Firm Reference No. AMDSP0374US

Reply to Office Action Dated June 17, 2004
Reply Dated September 17, 2004

AMENDMENTS IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of communicating on a network medium, comprising:
forming a frame in software;
transmitting the frame to a network medium interface device which has a pair of media access controllers (MACs) and a node discovery block;
determining a selected MAC of the MACs which is to be used to transmit the frame; and
transmitting the frame onto the network medium using the selected MAC
wherein the node discovery block obtains, retains and communicates node capability information regarding a destination node of the frame.
2. (Original) The method of claim 1, wherein the determining includes the network medium interface device checking the frame for embedded MAC selection information.
3. (Original) The method of claim 2, wherein the checking includes checking the frame for a first bit which indicates whether the MAC selection information has been embedded.
4. (Original) The method of claim 3, wherein the determining includes, if the first bit indicates that the MAC selection information has been embedded in the frame, checking a second bit of the frame, and using a value of the second bit to determine the selected MAC.
5. (Previously Presented) A method of communicating on a network medium, comprising:
forming a frame in software;
transmitting the frame to a network medium interface device which has a pair of media access controllers (MACs);
determining a selected MAC of the MACs which is to be used to transmit the frame; and

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transmitting the frame onto the network medium using the selected MAC,
wherein the determining includes;
the network medium interface device checking the frame for embedded MAC selection
information; and
if the frame does not contain the embedded MAC selection information, querying a node
discovery block for node capability information regarding a destination node of the frame.

6. (Original) The method of claim 5, wherein the querying includes obtaining from the
frame a destination address corresponding to the destination node, and passing the destination
address to the node discovery block.

7. (Original) The method of claim 6, wherein the passing the destination address includes
passing the destination address to a file retrieval sub-block of the node discovery block.

8. (Original) The method of claim 7, wherein the querying further includes the file
retrieval sub-block searching a cache sub-block of the node discovery block for the node
capability information regarding the destination node of the frame.

9. (Previously Presented) The method of claim 5, wherein the determining includes
selecting a default MAC from between the MACs if the frame does not contain the embedded
MAC selection information and if the node discovery block does not contain node capability
information regarding the destination node of the frame.

10. (Previously Presented) A method of communicating on a network medium,
comprising:
forming a frame in software;
transmitting the frame to a network medium interface device which has a pair of media
access controllers (MACs);
determining a selected MAC of the MACs which is to be used to transmit the frame; and

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transmitting the frame onto the network medium using the selected MAC,
wherein the forming includes embedding in the frame MAC selection information
regarding a destination node of the frame, if the software has available to it node capability
information regarding the destination node.

11. (Original) The method of claim 10, wherein the embedding includes setting a first bit
of the frame to indicate that the MAC selection information has been embedded, and setting a
second bit of the frame to indicate which of the MACs is the selected MAC.

12. (Currently Amended) A method of communicating on a network medium,
comprising:
forming a frame in software;
transmitting the frame to a network medium interface device which has a pair of media
access controllers (MACs);
determining a selected MAC of the MACs which is to be used to transmit the frame; and
transmitting the frame onto the network medium using the selected MAC,
wherein the transmitting includes passing the frame through an intervening device
between the software and the network medium interface device, and
wherein the forming includes embedding in the frame MAC selection information
regarding a destination node of the frame, if the software has available to it node capability
information regarding the destination node.

13. (Original) The method of claim 12, wherein the intervening device is a system MAC.

14. (Previously Presented) The method of claim 12, wherein the passing includes the
intervening device checking the frame for embedded MAC selection information, and, if the
frame does not have the embedded MAC selection information and the intervening device has
available to it node capability information regarding the destination node, embedding the
embedded MAC selection information in the frame.

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15. (Original) The method of claim 1, wherein the network medium includes telephone lines.

16. (Previously Presented) A method of communicating on a telephone line network medium, comprising:

forming a frame in software, the forming including embedding in the frame MAC selection information regarding a destination node of the frame, if the software has available to it node capability information regarding the destination node;

transmitting the frame to a network medium interface device which has a pair of media access controllers (MACs);

determining a selected MAC of the MACs which is to be used to transmit the frame, the determining including:

using the network medium interface device to check the frame for embedded MAC selection information;

if the frame has the embedded MAC selection information, using the MAC selection information to determine the selected MAC; and

if the frame does not contain the embedded MAC selection information, querying a node discovery block for node capability information regarding a destination node of the frame, and using the node capability information to determine the selected MAC; and

transmitting the frame onto the telephone line network medium using the selected MAC.

17. (Original) The method of claim 16, wherein the embedding includes setting a first bit of the frame to indicate that the MAC selection information has been embedded, and setting a second bit of the frame to indicate which of the MACs is the selected MAC.

18. (Original) The method of claim 17, wherein the checking includes checking the frame for a value of the first bit.

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19. (Original) The method of claim 18, wherein, if the first bit indicates that the MAC selection information has been embedded in the frame, the using the MAC selection information to determine the selected MAC, includes checking a second bit of the frame, and using a value of the second bit to determine the selected MAC.

20. (New) The method of claim 1, wherein the node capability information regarding a destination node includes at least one of protocols, formats, type of node, transmit rates, receiving rates, operating characteristics of a physical layer device and mode of operation.